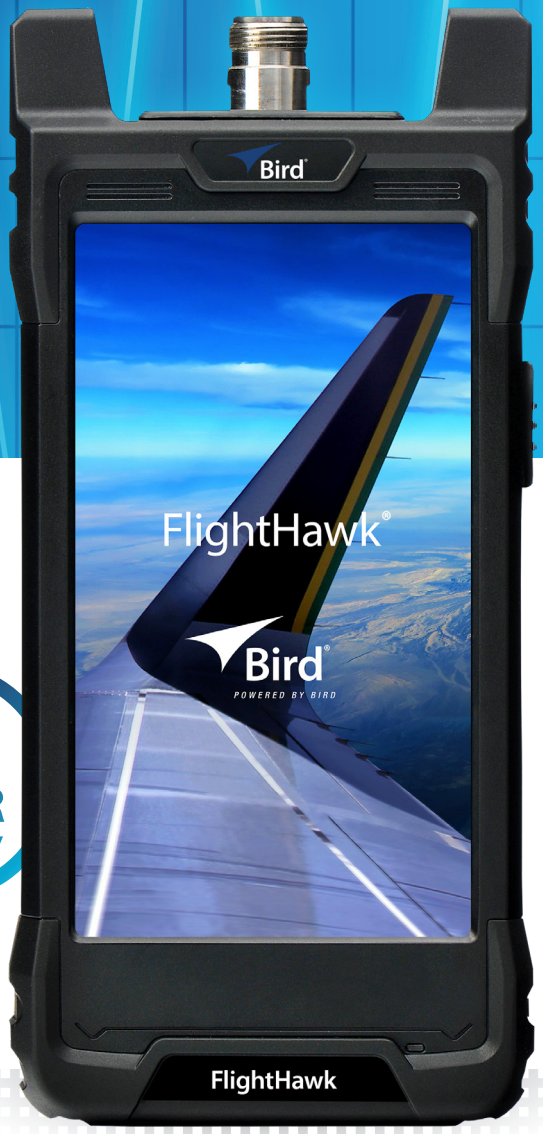
The RF Experts

FLIGHTHAWK® KIT

NEW

Aviation RF Cable & Antenna Analyzer

FH-AV-KIT



Minimize AOG Downtime

Avoid the Aircraft on Ground (AOG) downtime and expense that results from trial and error testing and component swapping.

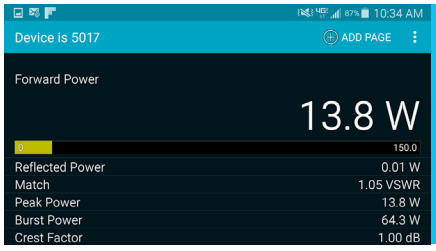
Bird's FlightHawk® RF Aviation Test Kit combines a unique set of components specifically designed for avionics testing and measurement. In a single rugged case, the kit includes the proven antenna and cable testing functionality of the FlightHawk® handheld analyzer, Bird's wideband power sensor – designed specifically to test aircraft RF systems and power measurement, and all necessary adapters and cabling. In addition, Bird's easy to use aviation testing software will allow anyone on the maintenance team to test and verify all antenna systems in the fleet.

3 YEAR Warranty

The Aviation Test Kit offers an intuitive user experience for both experienced and beginner RF maintenance crews. Based on aircraft OEM specifications, technicians can locate RF cable, connector and antenna problems at the source with clear visual indicators as to the pass/fail status of the system.

PRODUCT FEATURES

- Test RF cables & antennas at the frequency of operation
- Locate RF cable, connector & antenna problems at the source
- FDR (Frequency Domain Reflectometry) measurement method results in a highly reliable assessment of the health of critical components in your system; ultimately providing a "heads-up" before a failure occurs
- Fault location or DTF mode plots VSWR or Return Loss levels at each distance point along the cable and antenna system length
- Cable Loss function measures insertion loss of the cable system over a given frequency range
- OTG USB communication port for connection to Bird power sensors, storage devices and battery charging



Includes the Bird RF Meter App!

CRITICAL MEASUREMENTS

- FDR trace of precision return loss vs. frequency
- Return loss vs. distance
- Voltage standing wave ratio(VSWR)
- Cable loss and distance-to-fault (DTF) measurements

Bird

FLIGHTHAWK® AVIATION CABLE & ANTENNA ANALYZER KIT

FH-AV-KIT

Specifications

FLIGHTHAWK®

5017D-AV

SK-CAL-MN-C6

FH-AV-CC

4240-401

25-T-MN

MEASUREMENT

Frequency Range	1 MHz to 6000 MHz
Frequency Resolution	1 kHz
Output Power	-10 dBm, typical
Trace Noise Magnitude (IFBW 1kHz)	0.05 dB rms
Measurement Speed	1 ms/data point
Measurement Points	51 to 3201
Measure Bandwidth	100 Hz to 30 kHz
Temperature Stability	0.01 dB/°F (0.02 dB/°C)
Return Loss Measurement Range	0 dB to -60 dB
Resolution	0.01 dB
VSWR Measurement Range	1.0 to 65.0
Cable Loss Measurement Range	0 dB to 30 dB
DTF Range	0 to 5000 ft (0 to 1500 m)
Corrected Directivity	> 38 dB
Maximum Input Voltage	50 V
Immunity to Interfering Signals	+13 dBm
Power Measurement	Yes

ACCURACY

Frequency Accuracy	±2.5×10-6 @25 °C
Reflect Amplitude Accuracy	**–10 dB to 0 dB:** ±0.6 dB **–20 dB to –10 dB:** ±0.8 dB **–35 dB to –20 dB:** ±3.0 dB

CONNECTORS

Connector	USB Type-C, USB 3.0
Test Port Connector Impedance	N-type, Female 50 ohms

ENVIRONMENTAL

Operating Temperature	14 °F to 131 °F (-10 °C to 55 °C)
Storage Temperature	-40 °F to 176 °F (-40 °C to 80 °C)
Battery Charging Temperature	32 °F to 95 °F (0 °C to 35 °C)

SYSTEM

Display	5.5 in, 720p
Languages	English, Chinese, Spanish
Battery Type	Lithium-ion rechargeable
Battery Operating Time	10 hours typical
Battery Charge Time	5 hours typical
Storage Capacity	Thousands of trace and setups
Recommended Calibration Interval	2 years
Compatible With	For a complete list of compatible sensors see Bird's RF Meter page http://bit.ly/rfmeterapp2

PHYSICAL

Size	7.7 in x 3.6 in x 2.4 in (195 mm x 90 mm x 60 mm)
Weight	1.98 lb (0.9 kg)

CERTIFICATIONS

CE	**EMC:** Standard EN 61326-1:2006

STANDARD ACCESSORIES

Calibration Combo	SK-CAL-MN-C6
Stylus	SK-TP-112
AC Adapter (12 Vdc Output)	SK05T-1200300Z
Hard Carrying Case	FH-AV-CC
Adapter, N(m) – SMA(m)	4240-500-23
Adapter, N(m) – SMA(f)	4240-500-10
Adapter, Avionics	4240-443
Adapter, Avionics	4240-444
RF Cable, 10 feet long	5A2970-16-120B
USB Drive	5A2745-1
USB Adapter	SK-CONN-OTG-2

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FLIGHTHAWK® AVIATION CABLE & ANTENNA ANALYZER KIT

5017D-AV WIDEBAND POWER SENSOR Specifications

MEASUREMENT

Frequency Range	100 MHz to 1.3 GHz
Power Measurement Range	500 mW to 500 W average, 1300 W Peak
Impedance	50 Ohms nominal
Insertion Loss	<0.05 dB
Insertion VSWR	<1.05
Directivity	28 dB up to 100 MHz 30 dB from 100 to 1300 MHz

CONNECTORS

DPM	D89 proprietary interface
PC interface (1)	RS-232, 9600 Baud, no parity, 8 data bits, 1 stop bit, D89
PC interface (2)	USB 2.0 Type B
Connector	N(f) Both

SYSTEM

Power Supply	
USB Port	Less tha one low-power load
DC Input Connector	7 to 18 VDC at less than 0.1 A
Data Logging	Requires 5000-XT, VPM3 or Bird RF Meter App

ENVIRONMENTAL

Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
Storage Temperature	-40 °C to 80 °C (-40 °F to 176 °F)

PHYSICAL

Size	4.8 in x 4.6 in x 1.3 in (122 mm x 117 mm x 35.5 mm)
Weight	1.2 lb (.27 kg)

CERTIFICATIONS

Mechanical Shock & Vibration	IAQ MIL-PRF-28800F class 3
CE	EMC EN 61326-1-2006

SK-CAL-MN-C6 CALIBRATION COMBO

MEASUREMENT

Frequency	DC to 6 GHz
Resistance	50 Ohm
Average Power	≤ 1 W
Load Return Loss	–35 dB
Load VSWR	≤ 1.025
Open Phase Deviation	≤ ± 0.6°
Short Phase Deviation	≤ ± 0.6°

INTERFACE

Connectors	N (m)

ENVIRONMENTAL

Operating Temperature	15 °C to 35 °C (49 °F to 95 °F)
Storage Temperature	-40 °C to 75 °C (-40 °F to 167 °F)

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FLIGHTHAWK® AVIATION CABLE & ANTENNA ANALYZER KIT

FH-AV-CC HARD CASE Specifications

PHYSICAL

Size	15.27 in x 12.13 in x 6.69 in (38.8 cm x 30.8 cm x 17 cm)
Weight	4.5 lb (2.04 kg) without foam
Body	Polypropylene

CERTIFICATIONS

Compliance	IP67, MIL-STD, 810F, 512.4, Drop Tested Per MIL-STD-3010C Method 5007

4240-401 ADAPTER KIT

PHYSICAL

Size	6.5 in x 4.63 in x 1.69 in (16.5 cm x 11.8 cm x 4.3 cm)
Weight	1 lb (.45 kg)
Body	Polypropylene

CONNECTORS INCLUDED

(1) Male, (1) Female, Type N
(1) Male, (1) Female, Type BNC
(1) Male, (1) Female, Type TNC
(1) Male, (1) Female, Type UHF
(1) Male, (1) Female, Type SMA
(5) 50 Ohm couplers

25-T-MN TERMINATION/LOAD RESISTOR

MEASUREMENT

Power Rating	25 W
Frequency	DC - 4 GHz
VSWR DC - 1 GHz	1.10:1 max
VSWR 1 GHz - 4 GHz	1.15:1 max
Impedance	50 Ohms, Nominal

INTERFACE

Connectors	N (m)

ENVIRONMENTAL

Temperature Range	-40 °C to 40 °C (-40 °F to 104 °F)

PHYSICAL

Product Type	Dry (Convection-Cooled)
Operating Position	Any
Finish	Black Anodized
Size	4.7 in L x 2.3 in Dia (119.4 mm x 58.5 mm)
Weight	7 oz (198 g)

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